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EXAMINER

HOEL, MATTHEW D

ART UNIT PAPER NUMBER

3713

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/026,894	<b>Applicant(s)</b> LALLEY ET AL.	
	<b>Examiner</b> Matthew D. Hoel	<b>Art Unit</b> 3713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 8-15 and 22-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 8-15 and 22-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

2. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  4. Determining the scope and contents of the prior art.
  5. Ascertaining the differences between the prior art and the claims at issue.
  6. Resolving the level of ordinary skill in the pertinent art.
  7. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. **Claims 1-6, 8-15, 24 and 25 are rejected under 35 U.S.C. 103(a) as unpatentable over Carter, et al., (U.S. patent 4,695,058 A) in view of Bartsch (U.S. pre-grant publication 2003/0195046 A1, application 10/296,559).** Carter in '058 discloses all of the elements of these claims, but lacks specificity as to the hand-held microprocessor being capable of performing functions unrelated to the game, and a hand-held input device configured to receive information from the player, wherein the hand-held input device is coupled to the hand-held processor, as cited in Claims 1 and 10. Carter discloses a game and method for playing the game. At least one display

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strip is applied to a player. The display strip comprises a plurality of lights that are capable of displaying images. The display strip is coupled to a hand-held processor, which stores and executes game instructions for the game (See Carter col. 2 lines 47-58; col. 4 lines 58-64; col. 8 lines 66-67; col. 9 lines 1-67). For example, there is a microprocessor in the vest and one can clearly hold the vest, thereby making the microprocessor "hand-held" and the microprocessor includes memory containing instructions on how to illuminate the display strips based on signals generated throughout the game. Input is received from at least one player. Output signals are provided to the display strip from the hand-held microprocessor. Images are displayed on the display strip (See Carter Fig. 1; col. 4 lines 41-57; col. 8 lines 29-65; col. 14 lines 10-19) [claim 1]. The output signals are indicative of the player's status in the game (See Carter col. 4 lines 41-57) [claim 2]. Each player's status in the game is displayed on the display strip (See Carter col. 4 lines 41-57) [claims 3, 5, 15]. The display strip comprises a plurality of display strips and the at least one player comprises a plurality of players. The step of applying at least one display strip to at least one player comprises applying at least one display strip to each player (See Carter Fig. 1; col. 4 lines 41-57) [claim 15]. Input is received from a game input device operated by the player (See Carter col. 4 lines 12-32). Input is received by a simulated weapon shot (See Carter col. 14 lines 1-19) [claim 8]. An audible sound is emitted from the display strip (See Carter col. 7 lines 24-25; col. 8 lines 29-34) [claim 9]. The game comprises a hand-held microprocessor configured to store and execute games and at least one display strip in communication with the hand-held microprocessor processor. The display strip

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includes a plurality of lights wherein the lights are capable of displaying images received from the hand-held microprocessor. For example, the images could be merely a signal of whether an LED should be turned "on" or "off". A mounting structure is capable of mounting the display strip on the player and the display is in communication with the hand-held microprocessor (See Carter col. 2 lines 50-59; col. 4 lines 41-57; col. 8 lines 29-65; col. 9 lines 1-67; col. 14 lines 10-19) [claim 10]. The display strip comprises a plurality of displays trips and a plurality of game input devices are in communication with the hand-held microprocessor. The game input devices receive input from the players (See Carter Fig. 1; col. 2 lines 50-59; col. 4 lines 41-57) [claim 11]. Each game input device is associated with a display strip. Each game input device is arranged to receive input from a specified player and the display strip associated with the game input device is arranged to display status information fro the specified player (See Carter col. 2 lines 24-58; col. 4 lines 40-64) [claim 12]. The display strips are in communication with the hand-held microprocessor through the game input devices (See Carter col. 2 lines 24-58) [claim 13]. At least one sensor is provided wherein the sensor is capable of sensing radiation from a simulated weapon firing and providing output to the hand-held microprocessor in response to the simulated weapon firing (See Carter col. 58-67; col. 5 lines 27) [claim 14]. Bartsch, however, in '046 discloses a hand-held processor in the form of a PDA used in a laser-targeting firearm training system (Para. 436). It is inherent that the PDA will be able to perform functions other than those related to the game, as cited in Claims 1 and 10. Most PDAs include functions such as calendars, address books, calculators, and so forth. It is also inherent that the PDA will include a hand-held input

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device coupled to the hand-held processor, as cited in Claims 1 and 10, as all PDAs include input devices such as thumbwheels, buttons, and touchscreens with object character recognition for recognizing written input from a stylus, as is done on Palm Pilots. It would be obvious to one of ordinary to apply the PDA of '046 to the shooting game of '058. '046 has detectors that detect light in the form of a laser fired from a firearm (Abst.). '058 has guns with IR detectors for use in "laser tag" games, the point of the game being to increase the accuracy of the players (Col. 4, Lines 16 to 25). Most PDAs such as Palms and Blackberries come with holsters to clip onto a user's belt, so such a portable electronic device could be incorporated into the vest module of '058 which is worn on a player's person and incorporates a microprocessor (Fig. 7; Col. 4, Line 58 to Col. 5, Line 6). The advantage of this combination would be to reduce the hardware investment required by the players in order to play the electronic shooting game by taking advantage of standard PDAs that they already own. The players could simply download software to their PDAs from the game manufacturer's website and connect their PDAs to the rest of the game hardware through RS-232, USB, or IR ports common on all PDAs.

9. As to Claims 24 and 25: '046 teaches the hand-held microprocessor being a PDA (Para. 436).

10. **Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter ('058) and Bartsch ('046) in view of Davila (U.S. patent 4,602,191 A).** Carter lacks in disclosing that the display strip is flexible and that the images comprise alphanumeric characters. Davila teaches of clothing that has a flexible LED display

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[claim 22]. The images displayed by the display strips comprise alphanumeric characters (See Davila Figs. 1 & 3; col. 1 lines 24-29; col. 2 lines 1-36)[claim 23]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a flexible display strip where the images are alphanumeric characters with the combination of '058 and '046. By using a flexible display strip, the display strips may be able to be attached to a variety of wearable items including clothing, thereby allowing more options in how a player may wear the strip. Furthermore, by displaying alphanumeric characters "X"s or the team name may be displayed rather than just a line of LEDs thereby allowing more information to be displayed to the other players.

**11. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter ('058), Bartsch ('046), and Davila ('191) in view of Hare (U.S. patent 4,773,953 A).**

12. As to Claims 26 and 27: The combination of '058, '046, and '191 discloses all of the elements of Claims 26 and 27, but lacks specificity as to at least one display strip further comprising a sheet of label stock having a printable surface, wherein the label stock is configured to be inserted into a user's printer and printed with a user selectable image pattern and coupled to the at least one display strip to enable the custom pattern to be displayed on the display strip or a method comprising printing a user selectable image pattern on a sheet of label stock having a printable surface using a user's printer and coupling the printed label stock to the at least one display strip to provide a display strip having a custom pattern. Hare, however, in '953 discloses a sheet of label stock

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having a printable surface (design printed onto transferable sheet, Abst.). The label stock is configured to be inserted into a user's printer and printed with a user selectable image pattern (pattern created by user, Abst.). The label stock is coupled to the display strip to enable the custom pattern to be displayed on the display strip (pattern ironed onto fabric, Abst.). '191 also teaches a method of doing the same thing. It would be obvious to one of ordinary skill in the art to apply the customizable label stock of '953 to the combination of '058, '046, and '191. The programmable light patterns of the garment of '191 can be accompanied by illustrative designs (Col. 1, Lines 46 to 52). '058 suggests that multiple motifs such as cowboys and Indians, cops and robbers, or space aliens could be used for the shooting game (Col. 3, Line 61 to Col. 4, Line 4). The advantage of this combination would be to provide a game with a variety of easily customizable motifs to keep players interested in the game.

### ***Response to Arguments***

13. The 112, second paragraph rejections have been withdrawn since Claim 4 was cancelled, and Claims 5 and 10 were properly amended. The 101 rejections are withdrawn since the claims now cite "gaming device" as opposed to "game," properly drawing the claims to statutory subject matter. The applicants have incorporated more limitations into the claims to overcome the previous rejections. A "hand-held microprocessor which is capable of performing functions unrelated to the game" is not a non-obvious reason to allow the claims. The applicants are claiming something that does not really relate to the purpose of the invention, which is to provide programmable



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indicators wearable on a player's person, for use in a game, capable of displaying a variety of patterns. To place the claims in better condition over the prior art, the applicants should cite more limitations that more closely relate to how the display strips work and what they are intended to do. A hand-held microprocessor coupled to a hand-held input device is not novel or non-obvious, as iPods <sup>TM</sup>, PDAs such as Palms <sup>TM</sup> and Blackberries <sup>TM</sup>, H-P and TI programmable calculators, cell phones, and Nintendo GameBoys <sup>TM</sup> all include these features and are used for playing games. The examiner notes that in the shooting game embodiment of the applicants' specification, as well as in the '058 reference cited above, the processors are portable and are worn on the player's person, so "hand-held" is not really a limitation that bears much weight in light of the specification or the prior art. Indeed, the shooting game embodiment of the applicants' specification would be awkward to implement if the processor were held in the hand at all times, so the processor really is simply small and portable and capable of being hand-held without necessarily being hand-held at any particular time.

14. The applicants appear to be contradicting themselves. The previous examiner introduced the Coffman reference regarding the advantages of PDAs being portable. The applicants argued: "One would not purchase a toaster having a microprocessor configured to optimize the toasting of bread products when one wanted to play a video game." The applicants appeared to have been arguing that a PDA's general applicability teaches away from being used with the shooting game of '058; the examiner does not believe this to be the case, as discussed in the 103 rejection above. The applicants in their response amended the independent claims to state that the

processor is capable of functions unrelated to the game, which would be a processor of general applicability such as a PDA. The examiner updated the search and found many more references that read on the claims; the examiner thus respectfully disagrees with the applicants as to the claims' condition for allowance.

### ***Citation of Pertinent Prior Art***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Floyd in U.S. patent 5,454,600 A teaches customizable iron-on labels. Lys, et al. in U.S. patent 6,292,901 B1 teaches programmable LED arrays including arrays that can be incorporated into garments like T-shirts and programmed to function as TVs (Fig. 100; Col. 75 and 76). Wise in U.S. patent 5,424,922 A teaches fiber optic apparel. Kendir, et al. in U.S. pre-grant publication 2002/0197584, application 10/167,550), teach the use of PDAs in a firearms training system. Bruttel in Swiss patent CH 693 318 A5 teaches programmable LED arrays incorporated into the uniforms of emergency personnel. Gerber in U.S. patent 5,788,500 A teaches a laser battlefield simulation system. Fitch in U.S. patent 5,912,653 A teaches a garment with a programmable video display unit. Rubin, et al. in U.S. pre-grant publication 2004/0187184 A1, application 10/403,185, teach apparel with programmable displays. Janik in U.S. patent 6,108,197 A teaches a wearable computer. Camagnuolo in U.S. patent 5,474,452 A teaches a firearms simulation system. Gerber in U.S. patent 5,742,251 A teaches a combat harness with optical detectors used in combat simulations. Ota in U.S. patent 6,490,402 B1, Singh, et al. in U.S. patent 6,228,228 B1,

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and Bachl, et al. in U.S. patent 6,299,337 B1 teach flexible LED displays that could be incorporated into garments. Kim, et al. in U.S. patents 6,140,765 A and 6,320,312 B1 teach organic electroluminescent displays which are inherently flexible and could be incorporated into garments.

### ***Conclusion***

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

17. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Hoel whose telephone number is (571) 272-5961. The examiner can normally be reached on Mon. to Fri., 8:00 A.M. to 4:30 P.M.

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19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew D. Hoel, Patent Examiner  
AU 3713



XUAN M. THAI  
SUPERVISORY PATENT EXAMINER

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